

## ABSTRACT

A control signal generating circuit (1) comprises a comparator (10) for comparing an output voltage  $V_O$  with a reference voltage outputted from a reference voltage source (11), a flipflop (12) set by the output of the comparator (10), and a pulse control circuit (13) which receives an input voltage  $V_{IN}$ , a reference voltage  $V_{REF2}$ , and the inverted output of the flipflop (12), sets the on time in accordance with the ratio between the input voltage  $V_{IN}$  and the reference voltage  $V_{REF2}$ , and resets the flipflop (12) when the on time elapses after the output pulse of the flipflop (12) rises. The output pulse of the flipflop (12) is outputted as a control signal into a driver logic circuit (2). The driver logic circuit (2) performs on/off control of NMOSs (3, 4) according to the control signal. Thus, a switching regulator capable of operating at high speed can be realized.